

### **REMARKS**

The Official Action mailed May 5, 2004, has been received and its contents carefully noted. This response is filed within three months of the mailing date of the Official Action and therefore is believed to be timely without extension of time. Accordingly, the Applicants respectfully submit that this response is being timely filed.

The Applicants note with appreciation the consideration of the Information Disclosure Statements filed on March 7, 2002, April 29, 2002, February 6, 2003, December 9, 2003, March 9, 2004, and April 23, 2004. A further IDS is submitted herewith and consideration of this IDS is respectfully requested. Also, a Request for Corrected PTO 1449 Form is submitted herewith and consideration of this request is respectfully requested.

Further, the Applicants note that the Official Action relies on U.S. Patent No. 6,081,071 to Rogers in forming rejections. However, Rogers is not of record in that it has not been cited by the Examiner on Form PTO 892, nor has Rogers been cited by the Applicants on Form PTO 1449. Since it appears that Rogers was originally cited by the Examiner, the Applicants respectfully request that the Examiner formally cite Rogers on Form PTO 892.

Claims 1-12 are pending in the present application, of which claims 1, 3, 5, 7, 9 and 11 are independent. The independent claims have been amended to better recite the features of the present invention. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. Favorable reconsideration is requested.

The Official Action rejects claims 1, 3, 7 and 9 as obvious based on the combination of U.S. Patent No. 5,998,805 to Shi et al., U.S. Patent No. 5,909,081 to Eida et al., U.S. Patent No. 6,147,451 to Shibata et al. and U.S. Patent No. 6,081,071 to Rogers. The Official Action rejects claims 2, 4-6, 8 and 10-12 as obvious based on the combination of Shi, Eida, Shibata, Rogers, U.S. Patent No. 6,097,543 to Rallison et al. and/or U.S. Patent No. 5,882,761 to Kawami et al. The Applicants respectfully traverse

the rejection because the Official Action has not made a *prima facie* case of obviousness.

As stated in MPEP §§ 2142-2143.01, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The prior art, either alone or in combination, does not teach or suggest all the features of the independent claims. The independent claims of the present invention recite that a single crystal semiconductor substrate is held in a space which is defined by a bed plate and a cover plate and a packing material (claims 1, 3 and 5) or a binder layer (claims 7, 9 and 11). The Applicants note that the claimed device requires a bed plate in addition to a semiconductor substrate. Shi, Eida, Shibata, Rogers, Rallison and Kawami, either alone or in combination, do not teach or suggest at least the above-referenced features of the present invention.

With respect to independent claims 1, 3, 7 and 9, the Official Action concedes that Shi "fails to teach a single crystal semiconductor substrate, a bed plate, wherein the

single crystal semiconductor substrate is held in a vacant space which is defined by the bed plate and the cover plate and the packing material wherein the vacant space is filled with an inert gas and a drying agent" (page 2, Paper No. 0404). Similarly, with respect to independent claims 5 and 11, the Official Action concedes that Shi "fails to teach a single crystal semiconductor substrate, a bed plate and a cover plate formed of ceramics material, wherein the single crystal semiconductor substrate is held in a vacant space which is defined by the bed plate and the cover plate and the packing material wherein the vacant space is filled with an inert gas ... and is filled with a drying agent" (page 14, Id.). The Official Action asserts that Eida, Shibata and Rogers cure the deficiencies in Shi. The Applicants respectfully disagree and traverse the above-referenced assertion.

Shi, Eida, Shibata and Rogers do not teach or suggest the use of both a bed plate and a semiconductor substrate. Shi appears to teach an insulated gate field effect transistor provided on a single crystal semiconductor substrate where the semiconductor substrate is a bed plate. However, the semiconductor substrate of Shi is exposed to external air, which is different from the claims of the present application.

Eida appears to teach a bed plate, a cover plate and packing material where an organic EL device is held and where the space is filled with an inert gas. However, the EL device of Eida is provided on the bed plate, which is different from the claims of the present application.

Shibata appears to teach a transistor provided on a single crystal semiconductor substrate. However, the semiconductor substrate of Shibata is exposed to external air, which is different from the claims of the present application.

Rogers teaches that an EL device where the space is filled with a drying agent. However, the EL device of Rogers is provided on the bed plate, which is different from the claims of the present application.

Specifically, Shi and Shibata appear to teach that a semiconductor substrate itself is a bed plate and that an insulated gate field effect transistor is provided on the

bed plate. Eida appears to teach that a ceramic plate is a bed plate. Rogers appears to teach that a glass substrate is a bed plate. Eida and Rogers appear to teach that an EL device is provided on the bed plate. Whereas, the independent claims of the present invention recite that a single crystal semiconductor substrate is held in a space which is defined by a bed plate and a cover plate and a packing material or a binder layer. Shi, Eida, Shibata and Rogers, either alone or in combination, do not teach or suggest the use of both a bed plate and a semiconductor substrate. Therefore, Shi, Shibata, Eida and Rogers, either alone or in combination, do not teach or suggest that a single crystal semiconductor substrate is held in a space which is defined by a bed plate and a cover plate and a packing material or a binder layer.

Rallison and Kawami do not cure the deficiencies in Shi, Shibata, Eida and Rogers. Rallison is relied upon to allegedly teach a goggle type LED display (page 12, Paper No. 0404) and Kawami is relied upon to allegedly teach barium oxide and silica gel (page 15, Id.). Shi, Shibata, Eida, Rogers, Rallison and Kawami, either alone or in combination, do not teach or suggest that a single crystal semiconductor substrate is held in a space which is defined by a bed plate and a cover plate and a packing material or a binder layer.

Since Shi, Eida, Shibata, Rogers, Rallison and Kawami do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained.

Furthermore, there is no suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify Shi, Eida, Shibata and Rogers or to combine reference teachings to achieve the claimed invention.

The Official Action asserts that it would have been obvious to one of ordinary skill in the art at the time of invention to combine Shi, Eida, Shibata and Rogers (e.g. pages 3-4, Paper No. 0404). The Applicants respectfully disagree and traverse the above assertions in the Official Action.

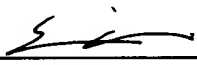
As noted above, Shi, Eida, Shibata and Rogers, either alone or in combination, do not teach or suggest the use of both a bed plate and a semiconductor substrate. The Applicants respectfully submit that it is unclear why one of skill in the art would have found any reason or desire to alter the teachings of Shi, Eida, Shibata and/or Rogers such that a single crystal semiconductor substrate is held in a space which is defined by a bed plate and a cover plate and a packing material or a binder layer. It is respectfully submitted that the teachings of the prior art are insufficient to suggest such a modification and insufficient to maintain a *prima facie* case of obviousness.

In the present application, it is respectfully submitted that the prior art of record, alone or in combination, does not expressly or impliedly suggest the claimed invention and the Official Action has not presented a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.

For the reasons stated above, the Official Action has not formed a proper *prima facie* case of obviousness. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

  
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